INTRODUCTION: Acute gastrointestinal inflammatory events may precipitate subsequent inflammatory bowel disease (IBD) development. Little is known about diverticulitis and subsequent IBD risk. We sought to investigate the prevalence of IBD with and without diverticulitis and compared to a non-gastrointestinal inflammatory process.

METHODS: We used a commercial database (Exophors Inc, Cleveland, OH) which includes electronic health record data from 26 major integrated US healthcare systems. Based on Systematized Nomenclature Of Medicine–Clinical Terms (SNOMED-CT), we identified adult patients (>18 years) who were diagnosed with diverticulitis between 2015 and 2020. As a comparator, we identified a second cohort of patients with pneumonia (PNA) with no prior diverticulitis. Similarly, patients with prior PNA were excluded from the diverticulitis group. First, we investigated the prevalence of first-ever IBD diagnosis with and without diverticulitis. Then we compared to the prevalence of first-ever IBD post diverticulitis vs first-ever IBD post PNA.

RESULTS: Out of 32,338,660 individuals in the database from 2015 to present, we identified 957,750 (2.9%) patients with diverticulitis, 1,434,620 (4.4%) patients with PNA, and 29,468,270 (91%) patients who never had diverticulitis or PNA. The prevalence of de novo IBD post diverticulitis (0.8%, 7,630/957,750) was significantly higher than those with no prior diverticulitis (0.7%, 207,490/29,468,270, P < 0.001) and compared to the PNA group (0.6%, 9,350/1,434,620, P < 0.001). Patients with diverticulitis were more likely to develop first-ever diagnosis of IBD compared with patients with PNA, OR [1.2, 95% CI: 1.16–1.18, P < 0.001]. Patients with de novo IBD post diverticulitis were more likely to be seniors (age >65 yrs), Caucasians, and less likely to be smokers compared to patients who developed IBD post PNA, OR P < 0.001 to all.

CONCLUSION: In this large study, the risk of de novo IBD was significantly increased following an episode of diverticulitis over control populations. Further studies are needed to validate these findings and explore potential causative mechanisms.

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An Indian National Survey of Gastroenterologists’ Views on Dysplasia Surveillance and Chromoendoscopy in IBD

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INTRODUCTION: International societal guidelines support use of chromoendoscopy (CE) for dysplasia surveillance in patients with inflammatory bowel disease (IBD). Our objective was to assess current dysplasia surveillance practices among gastroenterologists in India, which has the second highest number of patients with IBD after the USA.

METHODS: A 31-question survey was distributed to members of the Indian Society of Gastroenterology.

RESULTS: A total of 128 participated (94.5% male) with 87.5% consultant gastroenterologists (GI), 6.25% clinicians with GI interest & 6.25% GI trainees. Of these, 117 (91.4%) participants agreed that IBD patients in India require colonoscopic surveillance, 100 (78.2%) carried out surveillance colonoscopies. The 3 most common reasons for not performing IBD surveillance were lack of local guidelines (78.6%), cost constraints (77.1%) and 69.9% felt patients would receive better care with availability of novel endoscopic tools. The need for local IBD dysplasia surveillance guidelines was suggested by 79.8%.

CONCLUSION: We noted a high level of awareness regarding dysplasia surveillance but considerable variation in practice amongst GI clinicians in India. Cost constraints and lack of local guidelines were deemed significant barriers for modern dysplasia surveillance. The rising incidence and prevalence of IBD in India emphasises an urgent need for training and pragmatic guidelines to improve surveillance strategies.

S0678

A Survey of Knowledge, Perceptions, and Barriers on the Use of Artificial Intelligence in Patients With Inflammatory Bowel Disease in the U.S. and U.K.

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INTRODUCTION: Artificial intelligence (AI) is making rapid in-roads in various aspects of gastroenterology (GI). Early studies have shown potential for the use of AI in the diagnosis and management of inflammatory bowel disease (IBD). Our aim was to explore the current understanding of clinicians for the role of AI in GI and IBD in particular.

METHODS: A 15-question survey was distributed to members of the American College of Gastroenterology & British Society of Gastroenterology in May 2020.

RESULTS: A total of 249 members (USA:175, UK:74) responded. The demographic and clinical characteristics for participants from USA and UK are reviewed in Table 1. IBD surveillance colonoscopies were being performed by 84.7% of respondents. A total of 171 (68.7%) respondents were aware of the potential use of AI in GI. Specifically, 140 (81.9%) were aware of current use of AI for colonic polyp detection, 82 (47.9%) for Barrett’s surveillance, 72 (42.1%) for capsule endoscopy, 24 (14%) in early gastric cancer detection and 7 (4.1%) for IBD. Furthermore, 86.5% thought that AI could potentially improve IBD care in the future. The 3 most unmet needs in surveillance colonoscopy in patients with IBD were appropriate surveillance intervals (58.8%), accurate histopathology and dysplasia detection (37.4%), and yield from different biopsy protocols (51.4%). Suggested areas for use of AI in IBD were real time assessment and endoscopic scoring (73.1%), earlier detection of colorectal cancer (70.2%), facilitating “personalized” care (50.9%) and distinguishing Crohn’s disease from ulcerative colitis at index colonoscopy (31.4%). Respondents projected that AI would be available in clinical practice for IBD soon; 13.4% in < 1 year, 35.4% < 2 years and 52.1% < 5 years. The potential perceived barriers for use of AI in gastroenterology were cost (66.7%), uncertainty about technology with use of AI (26.3%) and concerns regarding patient confidentiality (39.8%).

CONCLUSION: There is a high level of awareness for AI in polyp detection but significantly less in IBD. Respondents felt that AI could improve endoscopic assessment in IBD, dysplasia surveillance and aid personalised care. Cost, unfamiliarity with AI technology and access to AI courses were perceived as likely barriers.
Rates of Depression Among Racial Minority Infectious Bowel Disease Patients at a Large Safety Net Hospital

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INTRODUCTION: Major depressive disorder (MDD) is a prominent psychiatric illness in the United States. Few studies have examined the prevalence of MDD among minorities with inflammatory bowel disease (IBD). Our study will determine the prevalence of depression among minority IBD patients at our safety-net hospital compared to the general population.

METHODS: We hypothesized that IBD patients have rates of depression twice the general population. We retrieved electronic medical records of the gastroenterology clinic from December 2018—December 2019. Data regarding MDD screening was defined from minimal to severe based on PHQ-9 score. Microsoft Excel and SPSS were used to analyze the effects of age, sex, IBD status, and comorbidities. P-value < 0.05 was considered statistically significant.

RESULTS: 95 IBD patients were included in the study, 45.3% female and 54.7% male; mean age 45 years. 26.6% were on immunosuppressive therapy. No significant differences were noted based on age, sex, or IBD status. None of the patients had a history of comorbidities. P-value < 0.05 was considered statistically significant.

CONCLUSION: Depression rates of minority IBD patients at our center are greater than triple that of the general population, with ~40% experiencing moderate-severe depression. The rate of MDD in our clinic is likely higher due to the low screening rates. This data will be used to improve depression screening especially among minorities.

Influenza, PCV13, and PPSV23 Vaccination Rates Among Inflammatory Bowel Disease Patients Based on CDC Recommendations at a Large Safety Net Hospital

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INTRODUCTION: Inflammatory Bowel Disease (IBD) alters the body’s ability to fight disease, predisposing patients to increased risk preventable by vaccination. The CDC recommends that each adult receive the annual influenza vaccine and patients with certain comorbidities receive the pneumococcal conjugate vaccine (PCV13) and pneumococcal polysaccharide vaccine (PPSV23). However, vaccination rates among IBD patients remain unacceptably low. The aim of our study is to present the influenza and pneumococcal vaccinations rates of IBD patients at our center.

METHODS: We hypothesized that vaccination rates will be suboptimal at our outpatient center, and that patients are not being vaccinated based on comorbid conditions in accordance with guidelines. We retrieved electronic medical records from the gastroenterology clinic between December 2018 and December 2019. Data regarding influenza and pneumococcal vaccines, immunosuppressive drugs, and comorbidities were obtained. Microsoft Excel and SPSS were used for data analyses. P-value < 0.05 was considered statistically significant.

RESULTS: 109 IBD patients were identified, 48.8% female and 53.2% male. Majority were African American at 77.1%. Mean age was 45 years. 26.6% were on immunosuppressive therapy. 28.4% received the annual influenza vaccine, 42.2% PCV23 alone, 19.3% PCV13 alone, and 16.5% received both. Patients >50 years were more likely to receive influenza vaccine (P = 0.01). Patients on immunosuppressive therapy were not significantly vaccinated with both PCV13 and PCV23 (P = 0.18, P = 0.74). Active smokers were not significantly vaccinated with PCV23 (P = 0.69). Patients with HIV, CKD, and sickle cell were significantly vaccinated with both PCV13 and PCV23 (P = 0.02, P = 0.02). Patients with other chronic medical conditions were significantly vaccinated with PCV23 (P = 0.02).

CONCLUSION: Our study revealed substandard influenza and pneumococcal vaccination rates among IBD patients at our facility. We also found that patients were not consistently vaccinated based on qualifying co-morbid conditions. We urge clinicians to examine IBD patient vaccination rates at their facilities.